IPMD Training – January 2021

OSD Acquisition Data and Analytics (ADA) Updates

Mr. David Tervonen

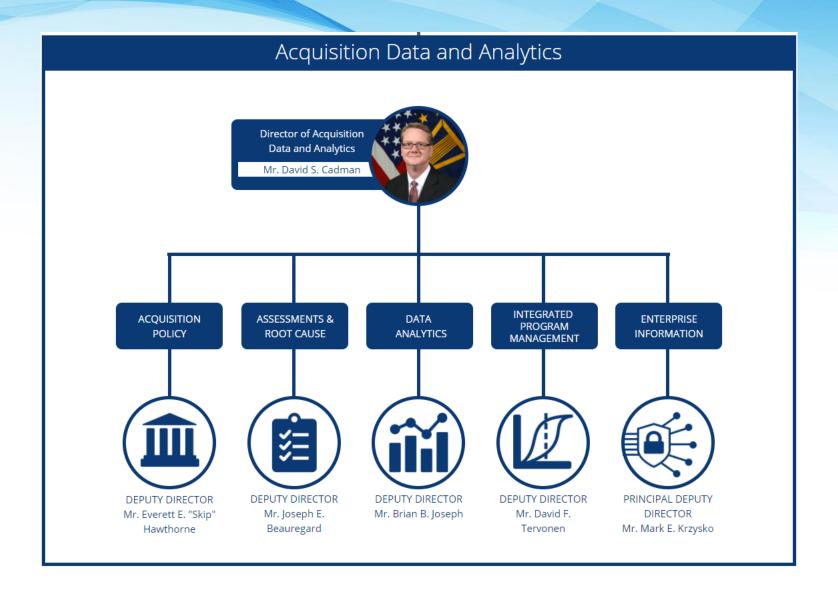
Deputy Director for Integrated Program Management, ADA





- **▶** Introduction
- ▶ AAP (now ADA) Organization Updates
- ► IPMDAR Overview & Policy Changes
- **► EVM-CR Workflow Updates**
- Questions





EVM Division now IPM Division

- Focus broader than EVM; schedule and risk management is particularly high interest
- Denotes flexibility in approach
 - Based on pathway, management approach (i.e., agile)
- Emphasis on usable and useful data that isn't unduly burdensome to collect, report or analyze

▶ IPM Division Role

- Largely remains what it had been
 - Responsible for IPM-related policy and guidance
 - Aids in resolving issues and interpretation questions
 - Outreach to government and industry groups
 - Working to develop and maintain IPM talent
 - Collecting lessons learned and helping disseminate best practices as they are developed and recognized
- Fundamental questions being asked
 - What is the proper purpose of IPM in DoD Acquisitions?
 What itch is IPM trying to scratch?
 - What is the appropriate role for the IPM Division in DoD?



► IPM Division Mission Statement

Promoting data driven decisions that improve acquisition outcomes through recognized management practices, flexible policy and guidance, innovative methods, and IPM knowledge/expertise

▶ IPM Division Pillars

- Promoting IPM Disciplines
- Creating more flexible policy and guidance
- Innovating at the speed of relevance
- Fostering IPM knowledge and expertise



IPMDAR Requirements & Implementation

Mr. John McGahan

EVM-CR Program Manager Tecolote Research, Inc.





- **▶** Introduction
- ► IPMDAR Policy Review
- ► IPMDAR Integration With EVM-CR
- ▶ Analysis Demo With Excel Pivot Data
- Questions



IPMDAR POLICY REVIEW: THE DATA



Pre-PARCA: CPR & VARs DID and IMS DID

- Separate (disconnected) deliverables
- CPR (Format 1-4) is a printable report format (and EDI 839)
- IMS is a native tool format (or a printed image of a GANTT)

▶ PARCA (2012): IPMR DID Combines CPR, VARs and IMS

- Reporting requirements aligned to capture cost/schedule data integrated
- Adopted UNCEFACT XML⁽¹⁾ Schema for all formats
 - Formats 1-4 mostly untouched (EDI839 to XML); plus printable reports
 - Introduced Format 6: XML snapshot of IMS (plus native)
 - Introduced (misunderstood) Format 7: Time-phased Format 1

► AAP (2020): IPMDAR (EVMS Data, Not Printable Reports)

- Corrects technical defects with cost/schedule integration
- JSON⁽¹⁾ encoding replaces XML
 - Format 6 mostly untouched (replaced with IPMDAR SPD)
 - Replace Formats 1-4, 7 with data more closely aligned to contractor EVMS (no requirement for printable reports)
- Reframed concept of VARs to facilitate conversation (what is needed by Govt)
- (1) XML: eXtensible Markup Language; JSON: JavaScript Object Notation



IPMR Strengths / Purpose

- Performance analysis at reporting level (e.g. WBS, OBS)
- Gold Card Analytics (CPI, SPI, VAC, TCPI, EAC)

Limitations / Weakness

- Visibility into management controls (WBS & OBS vs. CA/WP)
- Visibility into execution plan (partial future forecast reporting)
- Limitations for cost/schedule integration visibility
- Visibility into retroactive contract changes

IPMDAR Same Strengths / Capability

- Generate performance analysis at reporting level (e.g. WBS, OBS)
- Gold Card Analytics (CPI, SPI, VAC, TCPI, EAC)
- Can generate legacy formats

And So Much More...

- CA or WP visibility
- Hours and dollars
- Element of Cost visibility
- Fully time-phased future plan
- Positive traceability between cost and schedule
- Visibility into retroactive contract changes with time-phased To Date

Greater Focus On Forward Looking Analytics

CPR Format 1: WBS View

				OST PERFORMA									m Approved
				1 - WORK BREA	KDOWN STRU	CTURE						OMB No. 0704-0188	
I. CONTRACTOR			2. CONTRACT					3. PROGRAM				4. REPORT PERIOD	
NAME: ACME Construction			a. NAME: ACM					a. NAME: ACME					OM: 01-JAN-02
b. LOCATION: Denver, CO			b. NUMBER: AC	ME - 1000				b. PHASE (X on				b. TO	: 31-JAN-02
			c. TYPE: FFP					[]RDT&E [X]F	RODUCTION				
			d. SHARE RATI	0:									
5. CONTRACT DATA													
a. QTY	b. NEG COST	c. EST COST		d. TGT PRI		e. TGT	PRICE	f. EST F		g. CONT	CEILING	h.E	ST CEILING
0	\$183,852	S		\$36,147			219,999		219,999		0		
6. EST COST AT	MGMT EST		CONT BUD		VARIA		7. AUTHORIZE	D CONTRACTO	REPRESENTA	TIVE			
COMPLETION	(1	1)	(2	2)	(3								
							a. NAME (Last,	First, Middle Initi			b. TITLE		
a. BEST CASE	\$227		Y					Ted Smith				Manager	
b. WORST CASE	\$165		ž	- 1			c. SIGNATURE	tE d. DAT			d. DATE SIGNE		
c, MOST LIKELY	\$226	410.0	\$183	LOCAL CO.	-\$42	306							1-JAN-02
8. PERFORMANCE DATA			JRRENT PERIO		1			MULATIVE TO DA			A	T COMPLE	TION
	BUDGET	ED COST	ACTUAL	VARIA	NCE	BUDGET	ED COST	ACTUAL	VARIA	NCE			
ITEM	-		COST					COST					
	WORK	WORK	WORK		- 1	WORK	WORK	WORK					
	SCHED	PERF	PERF	SCHED	COST	SCHED	PERF	PERF	SCHED	COST	BUDGET	EST	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	ID WBS Cu
													11
	176,000	130/00/1	95000000	93.00	10/4/18/07		2665776	0000000			5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	0.00	2
1.1.1 Concrete	9,670	8,757	26,150	-912	-17,393	9,670	8,757	26,150	-912	-17,393	11,485	28	3
		2000-	00000									100	3
1.1.2 Framing	7,089	5,355	6,250	-1,734	-895	7,089	5,355	6,250	-1,734	-895	27,147	28	4
													5
1.1.3 Plumbing	0	0	0	0	0	0	0	0	0	0	5,704	5	6
					- 1						I		7
1.1.4 Electrial	0	0	0	0	0	0	0	0	0	0	14,070	14	8
		2	100				100		2		12.70		9
1.1.5 Interior	0	0	0	0	0	0	0	0	0	0	6,328	7	10
aloged to			10.0		- 2	13				0.0			
1.1.6 Roofing	0	0	0	0	0	0		0	0	0	1,730	- 1	11
OVERHEAD	16,062	14,317	0	-1,745	14,317	16,062	14,317	0	-1,745	14,317	75,684	61	12
b. COST OF MONEY	19		0	-3	17		17	0	-3		0.00		13
c. GEN & ADMIN	5,429	4,702	0	-726	4,702	5,429	4,702	0	-726	4,702	23,237	18	14

IMS: GANTT View of Tasks

% Co... Duration Start Finish Base

1308d 02/21/12 02/23/17

0d 02/21/12 02/21/12 0d 10/29/12 10/29/12 1d 07/09/13 07/09/13

1d 03/19/14 03/19/14 1d 11/27/14 11/27/14

Sea System Schedule Contract Milestones

Contract Award

Initial Report

Interim Report 3

7	9	Final Report	0	1d	02/23/17	02/23/17
1	10	Production Milestones	0	780d	06/20/13	06/15/16
1	11	Start of Construction	0	0d	06/20/13	06/20/13
	12	Begin Keel Laying	0	0d	08/05/13	08/05/13
	13	Begin Main Engines Installat	0	0d	11/05/13	11/05/13
	14	Launch Readiness Review	0	0d	02/25/15	02/25/15
	15	Initial Operation Capability	0	0d	10/06/15	10/06/15
	16	Start Final Outfit	0	0d	03/04/16	03/04/16
	17	Final Contract Trials (FCT)	0	60d	03/24/16	06/15/16
	18 1.1	Ship	0	727d?	06/11/13	03/23/16
	19 1.1.1	Hull Structure	0	360d?	06/11/13	10/27/14
	20 1.1.1.1	SHELL/SPT STRUCTURE	0	280d	06/20/13	07/16/14
	21	1.1.1.1.A Measure	0	60d	06/20/13	09/11/13
	22	1.1.1.1.B Cut	0	60d	09/12/13	12/04/13
	23	1.1.1.1.C Fabricate	0	120d	12/05/13	05/21/14
	24	1.1.1.1.D Assemble	0	150d	12/19/13	07/16/14
	25 1.1.1.2	HULL BULKHEADS	0	280d	06/20/13	07/16/14
	26	1.1.1.2.A Measure	0	60d	06/20/13	09/11/13
	27	1.1.1.2.B Cut	0	60d	09/12/13	12/04/13
	28	1.1.1.2.C Fabricate	0	120d	12/05/13	05/21/14
	29	1.1.1.2.D Assemble	0	150d	12/19/13	07/16/14
	30 1.1.1.3	HULL DECKS	0	280d	06/20/13	07/16/14
	31	1.1.1.3.A Measure	0	60d	06/20/13	09/11/13

CPR Format 2: OBS View

. NAME: ACME Housing

b. NUMBER: ACME - 1000

			c. TYPE: FFF	•				-	[]RDT&E [X]	PRODUCTIO	ON 28		1.1.1.2	
			d SHARE RA	TIQ:							29		1.1.1.2	
5. PERFORMANCE DATA		CU	RRENT PERIO	OD			CUM	ULATIVE TO DATE			30 1.1.1.3		HULL DE	
ITEM	BUDGETE	ED COST	ACTUAL COST	VARIA	ANCE	BUDGET	ED COST	ACTUAL	VARIA	NCE	31		1.1.1.3	
(1)	WORK SCHED (2)	WORK PERF (3)	WORK PERF (4)	SCHED (5)	COST (6)	WORK SCHED (7)	WORK PERF (8)	WORK PERF (9)	SCHED (10)	COST (11)	BUDGET (12)	EST (13)	VAR (14)	
Construction														
Construction	12,116	9,560	10,300	-2,556	-740	12,116	9,560	10,300	-2,556	-740	17,226	17,965	-739	
Management											1 1			
Project Management	7,503	5,668	6,250	-1,835	-582	7,503	5,668	6,250	-1,835	-582	19,475	20,057	-582	
SubCont Subcontractor Mgmt	13,203	13,203	15,850	0	-2,647	13,203	13,203	15,850	0	-2,647	36,272	38,919	-2,647	
SUBTOTAL	32,821	28,430	32,400	-4,391	-3,970	32,821	28,430	32,400	-4,391	-3,970	72,973	76,941	-3,969	
b. COST OF MONEY	19	17	0	-3	17	19	17	0	-3	17	82	65	17	
c. GEN & ADMIN	5,429	4,702	0	-726	4,702	5,429	4,702	0	-726	4,702	23,237	18,537	4,700	
d. UNDISTRIBUTED BUDGET											0	0	0	
e. SUBTOTAL (PM Baseline)	38,269	33,149	32,400	-5,120	749	38,269	33,149	32,400	-5,120	749	165,467	165,569	-102	
f. MANAGEMENT RESERVE											18385			
g. TOTAL	38,269	33,149	32,400	-5,120	749	38,269	33,149	32,400	-5,120	749	183,852			
			6. F	RECONCILIAT	ION TO CON	TRACT BUDG	ET BASE							
a. VARIANCE ADJUSTMENT	6								0	0				
N TOTAL CONTRIVARIANCE									0	0	0	0	0	

PROGRAM

b. PHASE (X one)

NAME: ACME Housing

. UNDISTRIBUTED BUDGET . SUBTOTAL (PM Baseline)

CONTRACTOR

NAME: ACME Construction

LOCATION: Denver, CO

2014 2015 2016 M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A

▶ What Is It?

- A collection of JSON encoded data tables
- A generic database model of an EVMS

Key Components

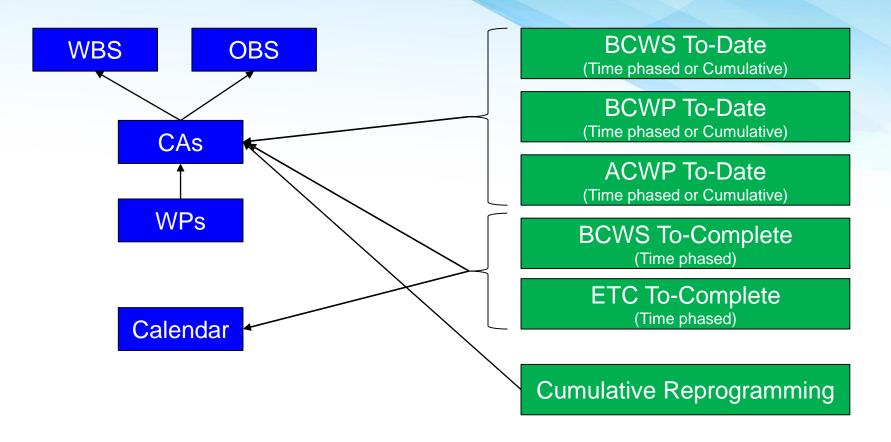
- Metadata / Contract Level
- Structures (cost & schedule)
- Detailed Data
 - To Date
 - To Complete
 - Cumulative Reprogramming
 - Schedule Dates & Durations
 - Task Relationships
 - Resource Utilization

CPD Data Tables	SPD Data Tables
Dataset Configuration	Dataset Metadata
Dataset Metadata	Source Software Metadata
Source Software Metadata	Project Schedule Data
Contract Data	Proj. Custom Field Definitions
Summary Performance	Proj. Custom Field Values
Custom Summary Performance	Calendars
Summary Indirect (To Date)	Calendar Workshifts
Summary Indirect (To Complete)	Calendar Exceptions
Subcontractors	Tasks
Work Breakdown Structure	Task Schedule Data
Org. Breakdown Structure	Task Custom Field Definitions
Control Accounts	Task Custom Field Values
CA Custom Field Definitions	Task Constraints
CA Custom Field Values	Task Relationships
Work Packages	Task Outline Structure
WP Custom Field Definitions	Resources
WP Custom Field Values	Res. Custom Field Definitions
Reporting Calendar	Res. Custom Field Values
BCWS (To Date)	Resource Assignments
BCWP (To Date)	
ACWP (To Date)	
BCWS (To Complete)	
EST (To Complete)	
Reprogramming Adjustments	

Defined in IPMDAR File Format Specification (FFS) Documents

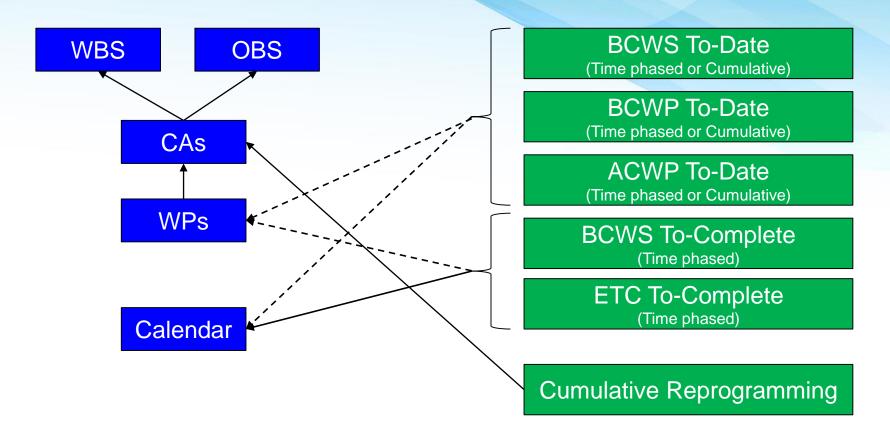


Contract/Effort Metadata & Summary Cost Data



Default Requirement: CA Level Data, To-Date Cumulative

Contract/Effort Metadata & Summary Cost Data



Optional Extensions: WP Level Data, To-Date Time-Phased

General

- Most metadata and contract/effort data maintained
- Removed
 - Quantity
 - Share Ratio
 - EVMS Acceptance

Format I (WBS) & Format 2 (OBS)

- WBS and OBS structures provided
- Data provided by control account or work package
 - Dollars & Hours, Element Of Cost, direct or "loaded"
 - Cumulative to date or time phased
 - Time phased future BCWS and ETC
 - Optional detailed (CA or WP) indirect charges
 - Reprogramming adjustments (if needed)
- Provided data can be used to generate Format 1 & 2 (with differencing from prior period report to derive current period data)

Format 3 (Baseline Changes)

- BCWR (e.g. BCWS To Complete) is provided time phased by CA or WP
- PMB (time phased) at End of Period is derived from CA/WP to-complete data
- PMB at Beginning of Period is derived from EOP from prior period report
- Baseline changes derived at CA or WP levels by differencing submission files
 - Traceable to the WBS or OBS
 - Dollars, hours, EOC, etc

Format 4 (Staffing)

- Metadata / Contract Level
- Structures (cost & schedule)
- Detailed Data

Data Contained in the CPD

- Hours
- Dollars
 - Total
 - By Element of Cost (Labor, Materials ODC, Sub)

▶ Are Cost Values Direct?

- The legacy Format 4 format indicates data is direct.
- EOC values should be considered direct
- In practice, data submissions make extensive use of the wInsight "NoAdd" flag

► The IPMDAR Support Multiple Representations

- Dollars can be reported as both direct and "loaded"
- EOC values can be reported as both direct and loaded
- Indirect values (OH, GA, COM) can be reported by CA/WP or in total

Dataset Configuration Table Identifies Content

- Reporting by Control Account or Work Package
- To-Date data as cumulative or time-phased
- Reporting by Element of Cost (required by DID)
- Reporting "Direct" costs
- Reporting Indirect Costs at the detailed level (CA or WP)

The Fine Print Is Important

Constraints for this table depend on DatasetConfiguration as follows:

If ToDate_TimePhased has a value of true, ReportingPeriodID must not be null; otherwise, ReportingPeriodID must be null.

If BCWS_ToDate_ByWorkPackage has a value of true, WorkPackageID must not be null and ControlAccountID must be null; otherwise, ControlAccountID must not be null and WorkPackageID must be null.

If Detail_HasDirectValues has a value of true, Value_Dollars_Direct must not be null; otherwise, the Value_Dollars_Direct must be null.

If BCWS_ToDate_HasElementOfCostValues has a value of true, each of Value_Dollars_LAB, Value_Dollars_MAT, Value_Dollars_ODC, Value_Dollars_SUB must not be null; otherwise, each must be null.

If BCWS_ToDate_HasElementOfCostValues and Detail_HasDirectValues each have a value of true, each of Value_Dollars_LAB_Direct, Value_Dollars_MAT_Direct, Value_Dollars_ODC_Direct, Value_Dollars_SUB_Direct must not be null; otherwise, each must be null.

If Detail_HasIndirectValues has a value of true, each of Value_Dollars_OH, Value_Dollars_COM, Value_Dollars_GA must not be null; otherwise, each must be null.

If not null, ReportingPeriodID must have a value that is less than or equal to the value of ReportingPeriodID in DatasetMetadata.



BCWS To-Date

(Time phased or Cumulative)

Table	BCWS_ToDate		(Time phased or
Entity	BCWS_ToDate		
Fields	Name	Data Type	Nullable
	ControlAccountID	StringID	Conditional
	WorkPackageID	StringID	Conditional
	ReportingPeriodID	Integer	Conditional
	Value_Dollars	Decimal	No
	Value_Dollars_Direct	Decimal	Conditional
	Value_Dollars_LAB	Decimal	Conditional
	Value_Dollars_LAB_Direct	Decimal	Conditional
	Value_Dollars_MAT	Decimal	Conditional
	Value_Dollars_MAT_Direct	Decimal	Conditional
	Value_Dollars_ODC	Decimal	Conditional
	Value_Dollars_ODC_Direct	Decimal	Conditional
	Value_Dollars_SUB	Decimal	Conditional
	Value_Dollars_SUB_Direct	Decimal	Conditional
	Value_Dollars_OH	Decimal	Conditional
	Value_Dollars_COM	Decimal	Conditional
	Value_Dollars_GA	Decimal	Conditional
	Value_Hours	Decimal	No
Primary Key	ControlAccountID, WorkPackageID, ReportingPerio	dID	
Foreign Keys	ControlAccount(ID)		
	WorkPackageID: WorkPackage(ID)		
	ReportingPeriodID: ReportingPeriod(ID)		



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EVM-CR Team Contact Info: EVM-CRSupport@Tecolote.com



EVM-CR Implementation of IPMDAR

Ms. Jen Horner

EVM-CR Deputy Program Manager Tecolote Research, Inc.





▶ IPMDAR and the EVM-CR

- EVM-CR Reporting Requirements
- Incremental Delivery
- EVM-CR Submit & Review
- Tools

IPMR

All UNCLASSIFIED ACAT I programs required to submit

▶ IPMDAR

 All UNCLASSIFIED programs required to submit – regardless of ACAT designation

► IPMDAR DID Reference

1.5 Data Repository. The Office of the Under Secretary of Defense (OUSD) Acquisition, Analytics and Policy (AAP) Earned Value Management (EVM) Division maintains a secure website, the Earned Value Management Central Repository (EVM-CR)², for all unclassified, proprietary and non-proprietary data from programs and contracts that have EVM reporting requirements, regardless of a program's Acquisition Category (ACAT) designation or a contract's value. The EVM-CR is housed on an unclassified computer system designed to control sensitive and proprietary contractor data. The system will accept only unclassified data including contracts with EVM data that are marked as For Official Use Only (FOUO), Business Sensitive, and/or Proprietary. No classified material shall be provided to the EVM-CR. Refer to DoD Manual 5200.01 Volume 4 for information regarding designation and marking of Controlled Unclassified Information (CUI).



▶ 5000.85 Major Capability Acquisition (MCA) Pathway

All programs required to submit to the EVM-CR

EVMS Reporting Requirements Table

Contract Value	<u>Applicability</u>	<u>Notes</u>	<u>Source</u>
< \$20M	Not required	IPMDAR may be used if cost and/or schedule reporting is requested by the program management office	
≥ \$20M & < \$100M	Required monthly when EVMS requirement is on contract	All IPMDAR datasets/ files must be included in the CDRL. Tailoring in accordance with DI-MGMT-81861B and Implementation Guide is allowed.	Integrated Program Management Report DID DI-MGMT-81861B*
≥ \$100M	Required monthly when EVMS requirement is on contract	IPMDAR is required. All files are required.	

Additional Information

All contracts, task orders, and delivery orders, IPMDAR data will be delivered to the EVMS Central Repository.

The IPMDAR can be tailored to collect cost and/or schedule data for any contract regardless of whether EVMS is required. For information on tailoring the IPMDAR, refer to the DoD IPMDAR Implementation Guide.

Formats and reporting requirements for the IPMDAR are determined and managed by USD(A&S) through the Office of Acquisition Analytics and Policy (AAP).

Reporting thresholds are in then-year dollars.

* DI-MGMT-81861B = Data Item Management-81861

Any contracts >\$20M with EVM Reporting requirements must submit to the EVM-CR – independent of pathway



- The EVM-CR is a data repository managed by the EVM division of OUSD(A&S)
 AAP, the office of Acquisition, Analytics and Policy.
- The purpose of the EVM-CR is to establish a source of authoritative Earned Value Management (EVM) data for the Department and to provide prompt access for PMOs, Services, OSD, and DoD Components.

SUBMIT - INDUSTRY

 Monthly reports delivered direct from the supplier

REVIEW - GOVERNMENT

 Government PMO reviews and approves or rejects delivery

PUBLISH

 Published submissions are available to all approved DoD Analysts

IPMDAR doesn't change this process

EVM-CR Access Request and User Roles

Access - Request via ADA IPM public website https://www.acq.osd.mil/evm/#/home



Request Access

EVM-CR A Log In Request Account How to Register

Industry

Submitter

RESPONSIBLE FOR Delivery of reports

APPROPRIATE FOR Industry contractors

Industry Reviewer

RESPONSIBLE FOR

Oversight of reports delivered by all submitters from their organization

APPROPRIATE FOR Industry contractors

Government

Reviewer

RESPONSIBLE FOR

Reviewing, approving, and publishing reports

Managing submitters and reviewers assigned to efforts

APPROPRIATE FOR **Program Office**

ALLOWED TO

View and download published reports

Analyst

APPROPRIATE FOR



ACCESS FVM-CR via

- External Certification Authority (ECA) certificate
- Certificates issued by major contractors Boeing, Northrup Grumman, Raytheon, and Lockheed Martin

ACCESS EVM-CR via

- Common Access Card (CAC)
- NDAs: Support contractors must obtain and submit NDAs in order to gain reviewer or analyst permissions

▶ IPMDAR DID Reference

- 1.2 The IPMDAR consists of the following three components:
- 1.2.1 Contract Performance Dataset (CPD). Provides performance/execution data from the contractor's existing management systems.
- 1.2.2 Schedule (Comprised of both the Native Schedule File and the Schedule Performance Dataset (SPD)). Provides data from the contractor's Integrated Master Schedule (IMS).
- 1.2.3 Performance Narrative Report (Comprised of both the Executive Summary and the Detailed Analysis Report). Provides narrative analysis of data provided in the CPD and the Schedule.

▶ IPMDAR vs. IPMR

IPMDAR	IPMR
CPD - Contract Performance Dataset (JSON)	Formats 1-4 & 7 XML (UN/CEFACT)
SPD - Schedule Performance Dataset	Format 6 XML (UN/CEFACT)
Native Schedule	Native Schedule
Performance Narrative Executive SummaryVariance Analysis	Format 5
Not Required	Formats 1-4 (Human Readable)

Executive Summary

- A program and contract performance overview contains:
 - Top-level PM cost and schedule forecast
 - High-level variance summary
 - Undistributed budget (UB) and management reserve (MR) analysis

Detailed Analysis Report

 Compilation of write-ups to describe the variances within a certain scope of the contract at the control account level.

Legacy IPMR Delivery Requirement

12-17 Days after the close of the contractors accounting period

► IPMDAR Delivery Requirement

 Monthly submissions should be delivered to the EVM-CR NLT 16 days after the close of the contractor accounting period.

▶ IPMDAR DID Reference

- 1.8 Delivery Timing.
- 1.8.1 Monthly Submission Requirement. IPMDAR data shall be required at least monthly. The reporting frequency shall be specified in the Contract Data Requirements List (CDRL). All reports shall reflect data from the same accounting period and shall be provided at any time after the close of the contractor's accounting period, but no later than sixteen (16) business days after the contractor's accounting period end date.

► IPMDAR DID Reference

1.8.1.1 Incremental Delivery. Reports may be provided incrementally, including preliminary data, with the number of days for delivery of each submittal tailored in the CDRL. Data delivered is not considered authoritative until the final submission and signature. The recommended incremental deliver process is the Schedule, followed by the CPD and the Executive Summary, Government review of submittals, Government directed Detailed Analysis, Contractor Detailed Analysis delivery and all final data.⁵

► IPMDAR Implementation & Tailoring Guide - Example

For notional and guidance purposes the incremental delivery plan could be constructed as follows:

- SPD To be delivered with native file five (5) working days after the end of the contractor's accounting period (may be labeled preliminary)
- CPD To be delivered with the Executive Summary ten (10) working days after the end of the contractor's accounting period (may be labeled preliminary)
- Contracting Office to select items for detailed analysis (variances) to contractor thirteen (13)
 working days after the end of the contractor's accounting period
- Performance Narrative Analysis to be delivered NLT sixteen (16) working days after the end of the contractor's accounting period along with any other "final" versions of previously submitted files

Note: The notional incremental delivery plan above is not additive.





► IPMDAR CDRL Tailoring Options

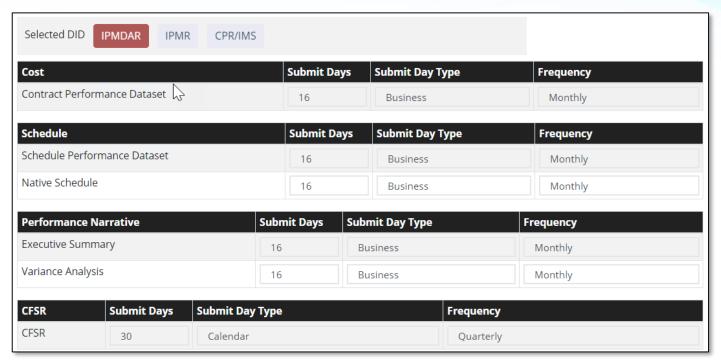
- Level of reporting (Work package, Control Account, WBS, etc.)
- Units (dollars or hours, both)
- Frequency (monthly, incremental, weekly, quarterly, annually, upon request)
- Variance Analysis Options (Government Identified Variances, Government Specified Variance Thresholds, Specific Number of Variances)
- Tailoring out "formats" (e.g., Schedule Only deliverable)
- Eliminating Performance Narrative Report and using internally generated
 Contractor Explanations or performance reviews
- Eliminating Schedule Data set and receiving Native Format Schedule only

Additional tailoring options discussed in the IPMDAR Implementation and Tailoring Guide; available on the EVM public website



► CDRLs Determine Reporting Requirements

- IPMDAR DID is put on contract
- CDRLs created and sent to EVM-CR Admins
- Admins establish reporting requirements
- EVM-CR measures compliance against CDRL requirements (monthly reports sent to Services, Components and Industry corporate focal points).

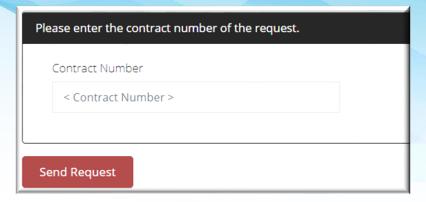


Example: IPMDAR Default Reporting Requirements



1. Submitter should verify they are added to Contract Effort. If not, request access via the website. PMO Lead Reviewer responsible for assigning Submitters.

Enter Contract Number and click "Send Request"



2. Submitter will click "Start Submission" to begin monthly submittal.

Start New Submission on Effort

Program	Contract	Effort	Effort Start Date	Effort End Date	
Jen's Program	ABCDE-00-A-0123	Delivery Order 1	7/1/2020	7/31/2025	Start Submission

What's New with Submit & Review Workflow?

- Delivery requirements clearly displayed with real time feedback:
 - File Uploaded
 - X File Not Uploaded
- When file(s) are uploaded they are immediately accessible to gov't PMO.
- New "Open" status allows access by both gov't PMO and Submit team
- Cost & Schedule files contained in a single submission
- Immediate feedback on Data Quality Validation Results
- Program Office Review Team can now collaborate and vote to accept, reject or conditionally accept a file.
- Submit team and PMO can communicate via submission comments

Submitter Requirements Display

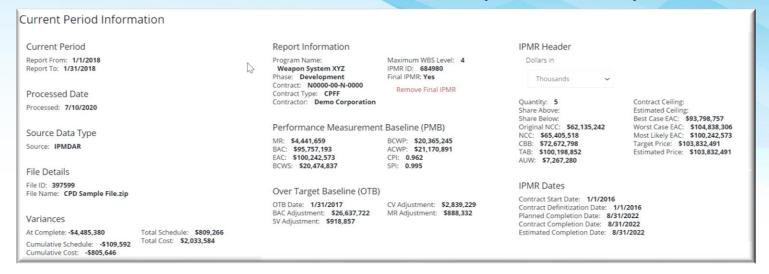
Reporting Requirements File Type **Upload** Included **Contract Performance Dataset** 1 × Schedule Performance Dataset 1 × **Native Schedule** 1 × 1 **Executive Summary** × 1 **Variance Analysis** × 1 Other

Reviewer Voting Display

Submission Files

	File Name	File Type	Version		File Comment		My Vote
•	Sample File.zip	Electronic Cost (IPMDAR)	Final	10/29/2020		1 Accept	Accept ~

▶ Data View — Reviewer and Submitter should verify data accuracy



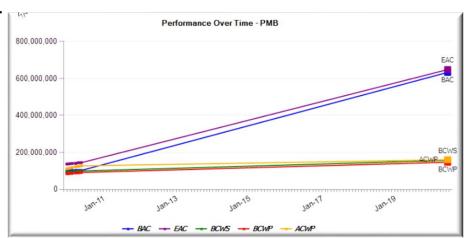
▶ Data Validation Report — Provides listing of all data checks and indicates if file

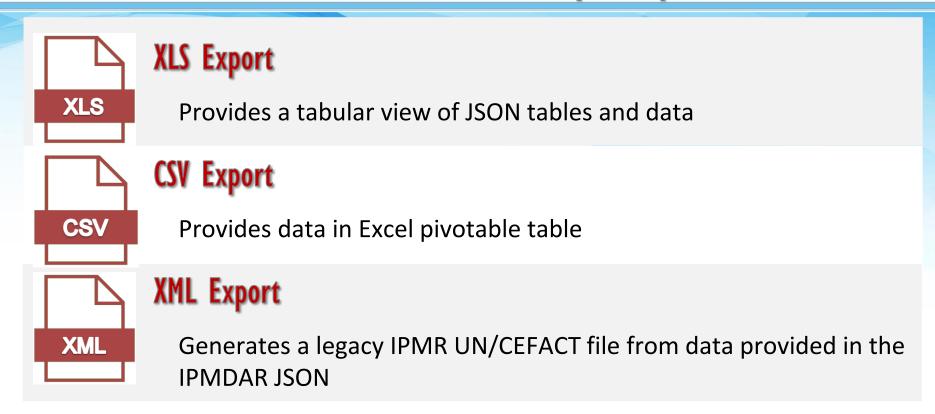
passed or failed, available to Submitter

► Performance Over Time Chart —

Provides visual rendering of PMB da

Provides visual rendering of PMB data received since effort reporting started



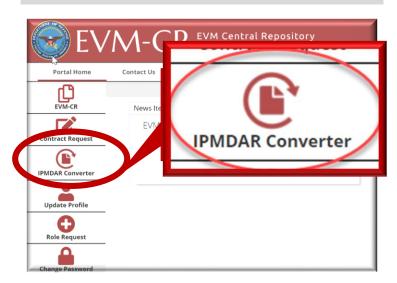




IPMDAR File Converter

- Generates a legacy IPMR Cost UN/CEFACT file from the IPMDAR CPD JSON file
- Generates a legacy IPMR Format 6 file from the IPMDAR SPD JSON file

Web based tool Requires EVM-CR Account



Downloadable Tools

- Validation Utilities check the file against the DEI (Data Exchange Instructions)
 - CPD and SPD
- Conversion Utilities generate legacy
 IPMR formats from IPMDAR files
 - CPD and SPD



Available on our public website and do not require an EVM-CR account to download



Many government networks block the download of an executable file.

Reminders:

- Do not require delivery of legacy IPMR or CPR Formats
 (UN/CEFACT, human readable formats 1 4* or legacy wlnsight)
- Do not tailor out IPMR "Formats" (Format 1 4)
- Do not require a specific due date, such as delivery is required on the 25th of each month

Recommendations:

- Discuss with contractor definition of "Business Days"
 - NLT 16 GOVERNMENT Business Days after the end of the contractors accounting period.

^{*}Excludes Performance Narrative, which is in human-readable contractor format

Acronyms

- CPD Contract Performance Dataset
- DEI Data Exchange Instructions
- DID Data Item Description
- EVM-CR Earned Value Management Central Repository
- FFS File Format Specification
- IPMDAR Integrated Program
 Management Data and Analysis Report
- IPMR Integrated Program Management Report
- SPD Schedule Performance Dataset

References

- DEI & FFS
 https://www.acq.osd.mil/evm/#/policy-guidance/ipmdar-dei-ffs
- DID
 https://quicksearch.dla.mil/qsDocDe
 tails.aspx?ident_number=278901
- Implementation & Tailoring Guide https://www.acq.osd.mil/evm/asset s/docs/IPMDAR%20Implementation %20Guide%20-%20May2020%20-%20FINAL%20-%20Signed%20and%20Dated.pdf
- Desktop Tools https://www.acq.osd.mil/evm/#/resources

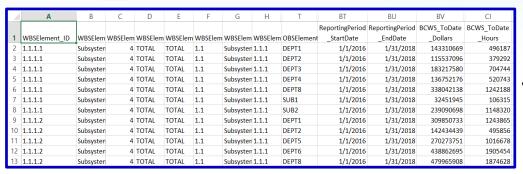


IPM Division Contact Info: OSD.DODEVM@mail.mil

EVM-CR Team Contact Info: EVM-CRSupport@Tecolote.com

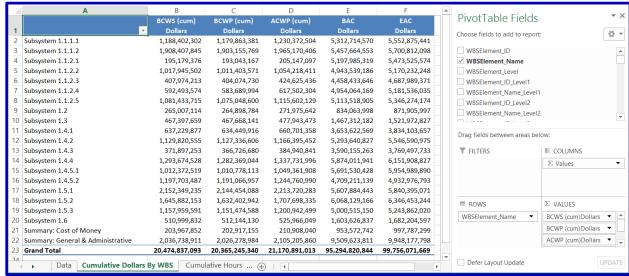
Backup

- Ability to convert IPMDAR data to IPMR format; generate legacy reports, e.g., CPR Format 1
- Ability to convert IPMDAR data to flattened table for use with Excel Pivot Tables



Flattened IPMDAR Contract
Performance Data

IPMDAR Contract
Performance Data Pivot Table





Responsibility Assignment Matrix

Sum of BCWS_ToComplete_Dollars	s Column Labels 🔻												
Row Labels	▼ Cpt Picard Cpt. Kirk	Dr Crusher Dr Pulaski	Mr. Data	Mr. E. Computer N	ir. L. McCoy I	Mr. La Forge Mr. Q	Mr. Riker	Mr. Spock Mr. Wo	orf Ms. Guin	an Ms. T. Yar	Ms. Troi Gr	and Total	
☐ Department 1	750954204	1 1244411849			1630052364			1865364717			5	490783134	
BMXF-MPJF-SPVD		255748347										255748347	
BQDH-GDNV-GVLP					342192051							342192051	
DGXF-QTVR-LDLT					94769357							94769357	
DHNQ-DZFW-BHVM								101107804				101107804	
FNLV-VXQW-MJQF								609170702				609170702	
GQVR-SYBG-QWQY					369697724							369697724	
LWPP-JKCH-DHLW					109605215							109605215	
NFQB-CLQS-TNYG		551015710										551015710	
PCMS-FVSX-RJKP		437647792										437647792	
PPCZ-JXLN-JFSL					204000275			323329727				323329727	
PVJZ-HFKS-QRRY					381989375			470042444				381989375	
RLBW-TGHD-FCPX					224700642			478813141				478813141 331798642	
TDYZ-ZXKX-NYHX TSQD-PCZS-TZDP					331798642			352943343				331798642 352943343	
VTKF-ZZHX-YXMX	430733622)						332343343				430733622	
XYJM-MFPH-RXRG	320220582											320220582	
⊕ Department 2	628955144		3349305886				1220517189	,				131160723	
① Department 3						2582858379		278264	1771	2519030150		884530300	
Department 4									6709551			709551675	
⊕ Department 5				5658985328							5	658085338	
⊞ Department 6				7169112322		Sum of BCWS	ToComplete	_Dollars Colum	n Labels 🔏	7			
🗄 Department 7				7129586928									
⊕ Department 8				7300900593		Row Labels		Cpt. Ki		Dr Crusher		Coy Mr. Spoci	
🗄 Subcontractor 1						■ Department	1		750954204	1244411849	1630052	364 18653647	17
⊞ Subcontractor 2		5679931881				BMXF-MPJ	F-SPVD			255748347	7		
∃Summary: Cost of Money				749604890		BQDH-GDI	IV-GVI D				342192	N51	
Summary: COM				749604890		`							
Summary: General & Administrati	tive			7472884900		DGXF-QTV	R-LDLT				94769	357	
Summary: GA Grand Total	520055144 75005420	1 1244411849 5679931881	2240205005	7472884900 35481074961	1520052254	DHNQ-DZF	W-BHVM					1011078	i04
Grand Total	628955144 /50954204	1 1244411849 56/9931881	3349305886	35481074961	1630052364	FNLV-VXQ'	W-MJQF					6091707	/02
						GQVR-SYB	G-OWOY				369697	724	
						LWPP-JKCI	• •				109605		
										551015710		213	
						NFQB-CLQ							
						PCMS-FVS)				437647792	2		
						PPCZ-JXLN	-JFSL					3233297	27
			Estim	nate to	_	PVJZ-HFKS-	QRRY				381989	375	
						RLBW-TGF	ID-FCPX					4788131	41
		(comp	lete by		TDYZ-ZXKX	-NYHX				331798		
						TSQD-PCZS						3529433	44
			ontrol	Accoun	τ	VTKF-ZZHX			430733622)		3323433	- 15
						XYJM-MFP	н-кхко		320220582				_
						Grand Total			750954204	1244411849	1630052	364 18653647	1



V

Budget At Complete by Control Account

Sum of BCWS_AtComp	leti Co	olumn Labels 💌																								
																							Sur	nmary:		
																					Su	mmary: Cost	Ge	neral &		
	~	Department 1	D	epartment 2	D	epartment 3	D	epartment 4	D	epartment 5	E	epartment 6	D	epartment 7	D	epartment 8	Sul	bcontractor 1	Su	bcontractor 2		of Money	Admi	nistrative		Grand Total
Subsystem 1.1.1.1	\$	463,531,251	\$	493,798,214	\$	492,274,403	\$	288,094,804	\$	375,837,163	\$	370,245,647	\$	991,964,798	\$	833,542,968	\$	601,360,669	\$	402,064,653	\$	-	\$	-	\$	5,312,714,570
Subsystem 1.1.1.2	\$	740,584,355	\$	393,128,465	\$	677,529,702	\$	270,830,128	\$	784,933,168	\$	795,549,681	\$	252,786,040	\$	724,867,638	\$	425,063,294	\$	392,392,082	\$	-	\$	-	\$	5,457,664,553
Subsystem 1.1.2.1	\$	609,170,702	\$	274,729,718	\$	488,359,338	\$	270,210,682	\$	581,109,921	\$	466,380,337	\$	522,373,871	\$	663,573,463	\$:	1,002,692,880	\$	319,384,407	\$	-	\$	-	\$	5,197,985,319
Subsystem 1.1.2.2	\$	177,812,934	\$	423,233,743	\$	362,819,878	\$	849,451,563	\$	501,419,224	\$	379,079,857	\$	406,142,501	\$	462,345,680	\$	562,147,762	\$	819,086,044	\$	-	\$	-	\$	4,943,539,186
Subsystem 1.1.2.3	\$	410,371,788	\$	523,029,947	\$	452,998,317	\$	377,466,809	\$	328,863,325	\$	235,467,492	\$	923,113,111	\$	314,591,146	\$	416,693,581	\$	475,838,130	\$	-	\$	-	\$	4,458,433,646
Subsystem 1.1.2.4	\$	522,076,604	\$	454,362,781	\$	175,907,369	\$	473,630,465	\$	558,561,723	\$	413,016,470	\$	166,851,143	\$	562,725,722	\$	733,849,274	\$	893,082,618	\$	-	\$	-	\$	4,954,064,169
Subsystem 1.1.2.5	\$	539,655,757	\$	394,045,301	\$	509,395,843	\$	331,496,346	\$	646,577,038	\$	819,286,564	\$	477,433,874	\$	602,916,402	\$	266,424,917	\$	526,286,863	\$	-	\$	-	\$	5,113,518,905
Subsystem 1.2	\$	-	\$	-	\$	-	\$	-	\$	-	\$	834,063,998	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	834,063,998
Subsystem 1.3	\$	-	\$	-	\$	-	\$	-	\$	-	\$	1,467,312,182	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	1,467,312,182
Subsystem 1.4.1	\$	437,352,599	\$	432,023,442	\$	334,812,915	\$	575,681,148	\$	216,216,501	\$	153,033,942	\$	423,485,864	\$	265,988,216	\$	353,782,624	\$	461,245,318	\$	-	\$	-	\$	3,653,622,569
Subsystem 1.4.2	\$	202,968,810	\$	454,918,557	\$	417,564,548	\$	607,359,728	\$	212,830,613	\$	488,901,526	\$	927,636,838	\$	730,146,094	\$	979,346,986	\$	271,967,127	\$	-	\$	-	\$	5,293,640,827
Subsystem 1.4.3	\$	331,798,642	\$	258,036,410	\$	489,609,676	\$	319,688,498	\$	328,266,601	\$	247,636,734	\$	333,937,851	\$	605,795,873	\$	427,110,255	\$	248,274,723	\$	-	\$	-	\$	3,590,155,263
Subsystem 1.4.4	\$	369,697,724	\$	599,199,934	\$	858,727,469	\$	782,137,450	\$	500,625,444	\$	372,146,138	\$	864,136,333	\$	563,496,687	\$	275,307,111	\$	688,537,651	\$	-	\$	-	\$	5,874,011,941
Subsystem 1.4.5.1	\$	325,837,648	\$:	1,080,353,740	\$	500,007,872	\$	486,521,799	\$	842,264,755	\$	355,283,412	\$	304,966,926	\$	770,265,240	\$	549,783,722	\$	476,245,314	\$	-	\$	-	\$	5,691,530,428
Subsystem 1.4.5.2	\$	381,989,375	\$	761,476,545	\$	470,897,320	\$:	1,074,397,177	\$	233,616,512	\$	404,222,309	\$	189,357,960	\$	242,356,775	\$	288,253,319	\$	662,643,847	\$	-	\$	-	\$	4,709,211,139
Subsystem 1.5.1	\$	457,276,028	\$	700,368,826	\$	421,421,684	\$	357,817,466	\$	259,979,617	\$	1,159,398,990	\$	553,937,408	\$	784,246,462	\$	539,534,757	\$	373,903,205	\$	-	\$	-	\$	5,607,884,443
Subsystem 1.5.2	\$	340,944,638	\$	400,287,288	\$ 1	1,038,900,704	\$:	1,064,072,585	\$	251,085,184	\$	317,320,730	\$	798,457,870	\$	723,138,384	\$	507,262,183	\$	626,659,600	\$	-	\$	-	\$	6,068,129,166
Subsystem 1.5.3	\$	870,829,189	\$	732,691,750	\$	463,159,271	\$	169,494,474	\$	398,010,940	\$	312,799,704	\$	233,038,019	\$	638,559,574	\$	552,972,533	\$	628,959,696	\$	-	\$	-	\$	5,000,515,150
Subsystem 1.6	\$	-	\$	-	\$ 1	1,603,626,837	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	1,603,626,837
Summary: Cost of Mone	y \$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	953,572,742	\$	-	\$	953,572,742
Summary: General & Ad	mir \$	-	\$	-	\$	-	\$	-	\$	-	\$		\$	-	\$	-	\$	-	\$	-	\$	-	\$ 9,5	09,623,811	\$	9,509,623,811
Grand Total	\$	7,181,898,044	\$8	,375,684,661	\$9	,758,013,146	\$8	,298,351,122	\$7	7,020,197,729	\$	9,591,145,713	\$8	8,369,620,407	\$ 9	9,488,556,324	\$8	,481,585,867	\$8	3,266,571,278	\$	953,572,742	\$ 9,50	9,623,811	\$9	5,294,820,844

ControlAccount_ManagerName	Mr. Data 🍱	
Sum of BCWS_ToComplete_Dollars	s Column Labels 💌	
Row Labels	▼ Department 2	Grand Total
Subsystem 1.4.5.1	1080353740	1080353740
Subsystem 1.4.5.2	666617008	666617008
Subsystem 1.5.1	593246143	593246143
Subsystem 1.5.2	313315512	313315512
Subsystem 1.5.3	695773483	695773483
Grand Total	3349305886	3349305886

CAM Budget

Side-by-Side Dollars/Hours

	BCWS (cum)	BCWS (cum)
▼	Dollars	Hours
⊞ Summary: Cost of Money	203,967,852	0
⊕ Summary: General & Administrative	2,036,738,911	0
⊟TOTAL	18,234,130,330	69,876,865
Subsystem 1.1	6,391,836,527	24,417,208
Subsystem 1.1.1	3,096,810,147	12,160,830
Subsystem 1.1.2	3,295,026,380	12,256,378
🕀 Subsystem 1.2	265,007,114	1,040,467
🕀 Subsystem 1.3	467,397,659	1,855,008
■ Subsystem 1.4	5,642,698,219	21,274,715
Subsystem 1.4.1	637,229,877	2,387,638
Subsystem 1.4.2	1,129,820,555	4,182,659
Subsystem 1.4.3	371,897,253	1,490,751
Subsystem 1.4.4	1,293,674,528	4,657,760
Subsystem 1.4.5	2,210,076,006	8,555,907
☐ Subsystem 1.5	4,956,190,979	19,172,227
Subsystem 1.5.1	2,152,349,235	8,043,515
Subsystem 1.5.2	1,645,882,153	6,418,807
Subsystem 1.5.3	1,157,959,591	4,709,905
⊞ Subsystem 1.6	510,999,832	2,117,240
Grand Total	20,474,837,093	69,876,865



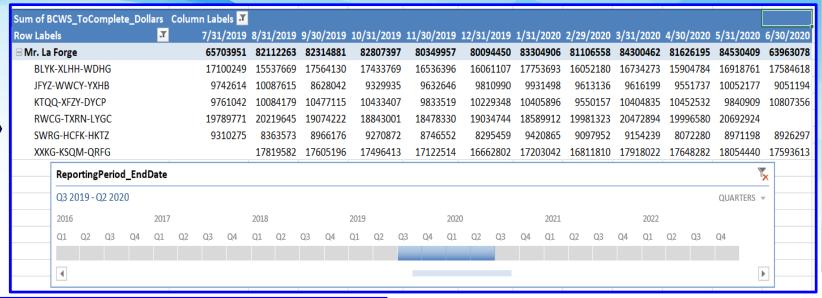


Element of Cost by Control Account (Hours/Dollars)

ControlAccount_ManagerName	(AII)							
Row Labels	BCWS Hours ToDate	BCWS ToDate \$	BCWS ToDate Lab \$	BCWS ToDate Mat \$	BCWS ToDate ODC \$	BCWS ToDate Sub \$	BCWS Hours ToCmpt	BCWS ToCmpt \$
Summary: Cost of Money	0	\$203,967,852	\$0	\$0	\$0	\$0	0	\$749,604,890
⊕ Summary: General & Administrative	0	\$2,036,738,911	\$0	\$0	\$0	\$0	0	\$7,472,884,900
⊡TOTAL	69876865	\$18,234,130,330	\$7,251,267,995	\$4,572,743,060	\$1,831,293,797	\$4,578,825,478	253136716	\$66,597,493,961
☐ Subsystem 1.1	24417208	\$6,391,836,527	\$2,544,102,246	\$1,594,156,919	\$641,717,039	\$1,611,860,323	110099392	\$29,046,083,821
Subsystem 1.1.1	12160830	\$3,096,810,147	\$1,228,923,142	\$774,562,387	\$309,662,078	\$783,662,540	28391211	\$7,673,568,976
Subsystem 1.1.2	12256378	\$3,295,026,380	\$1,315,179,104	\$819,594,532	\$332,054,961	\$828,197,783	81708181	\$21,372,514,845
☐ Subsystem 1.2	1040467	\$265,007,114	\$104,115,541	\$67,676,296	\$25,685,658	\$67,529,619	2238544	\$569,056,884
(blank)	1040467	\$265,007,114	\$104,115,541	\$67,676,296	\$25,685,658	\$67,529,619	2238544	\$569,056,884
Subsystem 1.3 ■ Subsystem 1.3	1855008	\$467,397,659	\$195,806,670	\$115,572,447	\$44,238,411	\$111,780,131	3771757	\$999,914,523
(blank)	1855008	\$467,397,659	\$195,806,670	\$115,572,447	\$44,238,411	\$111,780,131	3771757	\$999,914,523
■ Subsystem 1.4	21274715	\$5,642,698,219	\$2,214,134,722	\$1,423,372,422	\$571,093,753	\$1,434,097,322	88951915	\$23,169,473,948
Subsystem 1.4.1	2387638	\$637,229,877	\$254,972,824	\$163,571,149	\$64,472,038	\$154,213,866	11699958	\$3,016,392,692
Subsystem 1.4.2	4182659	\$1,129,820,555	\$443,994,690	\$284,927,080	\$111,925,918	\$288,972,867	16485389	\$4,163,820,272
Subsystem 1.4.3	1490751	\$371,897,253	\$144,736,375	\$90,400,269	\$39,192,858	\$97,567,751	12638031	\$3,218,258,010
Subsystem 1.4.4	4657760	\$1,293,674,528	\$488,296,318	\$332,485,939	\$130,775,818	\$342,116,453	17226071	\$4,580,337,413
Subsystem 1.4.5	8555907	\$2,210,076,006	\$882,134,515	\$551,987,985	\$224,727,121	\$551,226,385	30902466	\$8,190,665,561
Subsystem 1.5	19172227	\$4,956,190,979	\$1,983,395,612	\$1,242,147,946	\$502,878,519	\$1,227,768,902	43892533	\$11,720,337,780
Subsystem 1.5.1	8043515	\$2,152,349,235	\$850,656,059	\$530,493,461	\$224,874,225	\$546,325,490	12738157	\$3,455,535,208
Subsystem 1.5.2	6418807	\$1,645,882,153	\$657,715,794	\$419,378,558	\$161,881,377	\$406,906,424	16650306	\$4,422,247,013
Subsystem 1.5.3	4709905	\$1,157,959,591	\$475,023,759	\$292,275,927	\$116,122,917	\$274,536,988	14504070	\$3,842,555,559
☐ Subsystem 1.6	2117240	\$510,999,832	\$209,713,204	\$129,817,030	\$45,680,417	\$125,789,181	4182575	\$1,092,627,005
(blank)	2117240	\$510,999,832	\$209,713,204	\$129,817,030	\$45,680,417	\$125,789,181	4182575	\$1,092,627,005
Grand Total	69876865	\$20,474,837,093	\$7,251,267,995	\$4,572,743,060	\$1,831,293,797	\$4,578,825,478	253136716	\$74,819,983,751



TimePhased
Future
Forecast
by CAM
(Dollars)

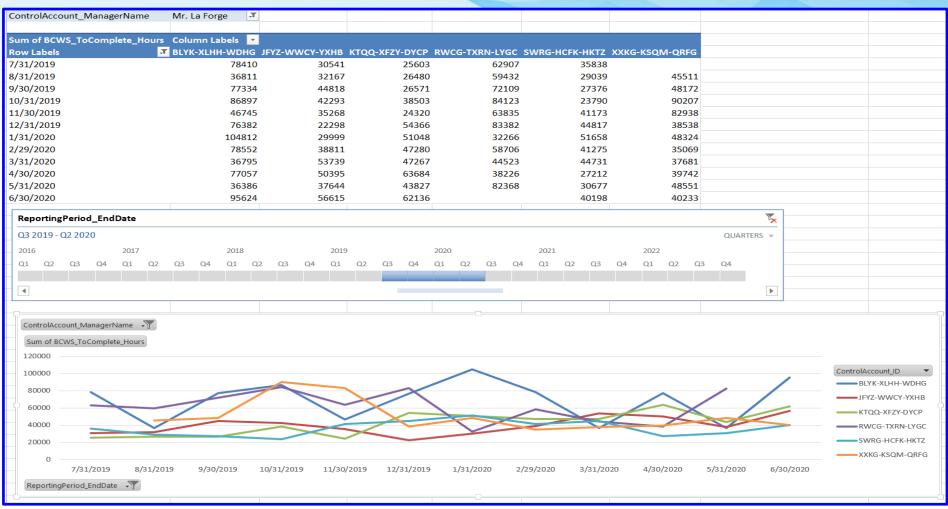




CAM Forecast (Dollars)

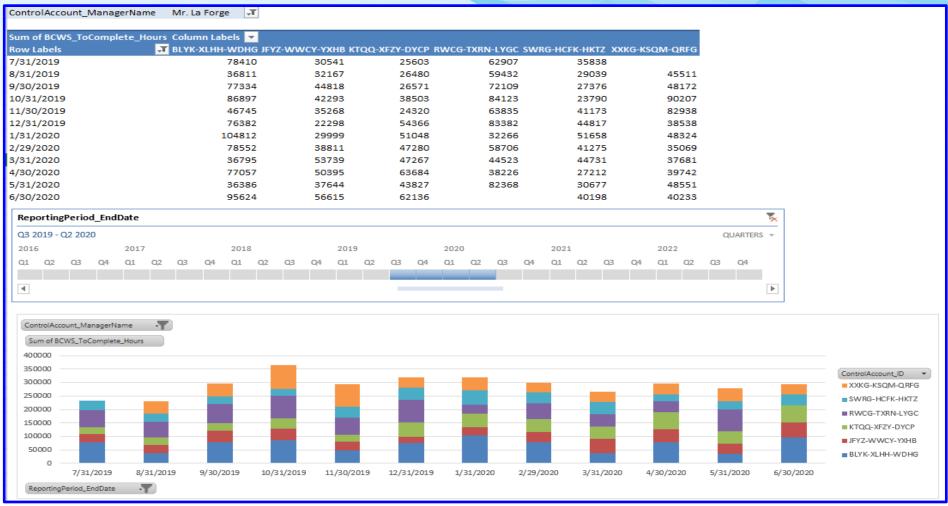


Time-Phased Forecast by CAM (Hours)



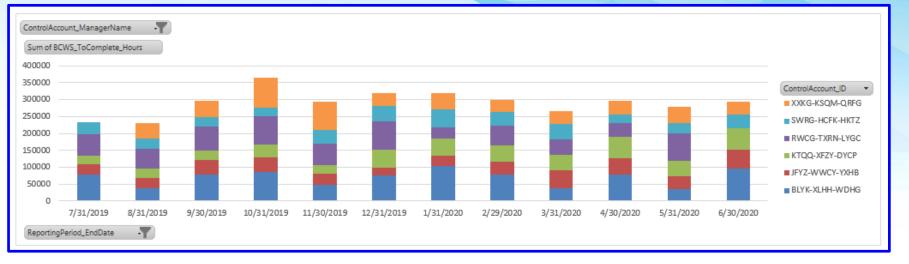


Time-Phased Future Forecast by CAM (Hours)



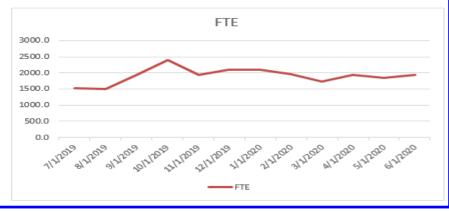


Derived FTE Chart by Control Account



Derived FTE Chart by CAM

Total	Total	Total
Date	Hours	FTE
7/31/2019	233299.0	1534.9
8/31/2019	229440.0	1509.5
9/30/2019	296380.0	1949.9
10/31/2019	365813.0	2406.7
11/30/2019	294279.0	1936.0
12/31/2019	319783.0	2103.8
1/31/2020	318107.0	2092.8
2/29/2020	299693.0	1971.7
3/31/2020	264736.0	1741.7
4/30/2020	296316.0	1949.4
5/31/2020	279453.0	1838.5
6/30/2020	294806.0	1939.5







Open Communication & Transparency Are Key To Effective Program Management

